

WHAT IS CLAIMED IS:

1. A device for determining a suitable site for sampling physiological fluid, said device comprising:
 - (a) at least one flow characterization element for determining the flow of said site; and
 - (b) at least one skin-piercing element for accessing said physiological fluid at said site.
2. The device according to claim 1, wherein said at least one flow characterization element comprises an element capable of determining the temperature of said site.
3. The device according to claim 1, wherein said at least one flow characterization element comprises an element capable of determining red blood cell character of said site.
4. The device according to claim 1, wherein said at least one flow characterization element comprises at least one light source for irradiating tissue with light and at least one detector for detecting the light absorbed by said tissue.
5. The device according to claim 4, wherein at least one light source is capable of emitting light at a wavelength in the range from about 400 nm to 1200 nm.
6. The device according to claim 1, wherein said at least one flow characterization element comprises an element capable of performing Doppler flowmetry.
7. The device according to claim 1, further comprising a microprocessor for processing measurements obtained by said flow characterization element.
8. The device according to claim 1, further comprising an analyte concentration determination reagent test strip.

9. The device according to claim 8, wherein said test strip is an electrochemical test strip.

10. The device according to claim 8, wherein said test strip is a colorimetric test strip.

11. The device according to claim 1, further comprising a means for automatically determining the concentration of at least one analyte in said physiological sample.

12. The device according to claim 1, further comprising at least one fluid enhancing element.

13. The device according to claim 1, further comprising at least one sample type characterization element.

14. The device according to claim 13, wherein said at least one sample type characterization element comprises a pulse characterization element.

15. The device according to claim 13, wherein said at least one sample type characterization element comprises a hemoglobin characterization element.

16. A device for determining a suitable site for sampling physiological fluid, said device comprising:

(a) at least one sample type characterization element for determining the sample type of a particular site; and

(b) at least one skin-piercing element for accessing said physiological fluid at said site.

17. The device according to claim 16, wherein said at least one sample type characterization element comprises at least one light source for irradiating tissue with light and at least one detector for detecting the light absorbed by said tissue.

18. The device according to claim 17, wherein said at least one light source is capable of emitting light at a wavelength from about 400 nm to 1200 nm.

19. The device according to claim 17, wherein said at least one light source includes at least two light sources.

20. The device according to claim 19, wherein each of said at least two light sources is capable of emitting light at a wavelength from about 400 nm to 1200 nm.

21. The device according to claim 16, wherein said at least one sample type characterization element comprises an element capable of determining the pulse character of said site.

22. The device according to claim 16, wherein said at least one sample type characterization element comprises an element capable of determining the hemoglobin character of said site.

23. The device according to claim 16, wherein said at least one sample type characterization element comprises an element capable of determining the hemoglobin concentration of said site.

24. The device according to claim 16, wherein said at least one sample type characterization element comprises an element capable of determining the concentration of oxygenated hemoglobin and deoxygenated hemoglobin of said site.

25. The device according to claim 16, wherein said at least one sample type characterization element comprises an element capable of determining the concentration of total hemoglobin of said site.

26. The device according to claim 16, wherein said at least one sample type characterization element comprises an element capable of determining the oxygenated hemoglobin to deoxygenated hemoglobin ratio of said site.